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CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC			STACE, BRENT S	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/805,731	WATSON ET AL.
	Examiner	Art Unit
	Brent S. Stace	2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 21 November 2007.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-66 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-66 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 20 March 2007 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. This communication is responsive to the amendment dated November 21st, 2007. In the amendment dated November 21st, 2007, Claims 1-66 are pending, Claims 1, 4, 5, 23, 26, 27, 44, 45, 48, 49 are amended, and Claims 1, 23, and 45 are independent Claims.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/21/07 has been entered.

Response to Arguments

3. Applicant's arguments filed November 21st, 2007 with respect to Claims 1-66 have been fully considered but they are moot in view of the new ground(s) of rejection.
4. In response to the arguments directed towards the 35 U.S.C. 101 and 35 U.S.C. 112 rejections, see the rejections below for further clarification and understanding.

5. Any other claims argued merely because of a dependency on a previously argued claim(s) in the arguments presented to the examiner, November 21st, 2007, are moot in view of the examiner's interpretation of the claims and art and are still considered rejected based on their respective rejections from at least a prior Office action (part(s) of recited below).

Response to Amendment

Claim Objections

6. In light of the applicant's respective arguments or respective amendments, the previous claim objections to the claims have been withdrawn. However, new objection(s) are warranted by the amendments.

7. Claims 3, 15, 18, 25-32, 40, and 59 are objected to because of the following informalities:

a. Claim 15 is similar to Claim 59, but Claim 15 was not amended like Claim

59 was amended in this amendment (some subject matter was removed at the end of Claim 59 that was not removed at the end of Claim 15). This could be an oversight by the applicant.

b. Claim 18 is similar to Claim 40, but Claim 18 was not amended like Claim 40 was amended in this amendment (some subject matter was added at the end of Claim 40 that was not added at the end of Claim 18). This could be an oversight by the applicant.

- c. Claim 25 is similar to Claim 3, but Claim 25 was not amended like Claim 3 was amended in this amendment (some subject matter was removed and added in Claim 3). This could be an oversight by the applicant. This objection propagates downward through dependent Claims 26-32.
- d. Claim 59 recites "diagnosing at least one possible for an underperforming search result" in lines 3-4. This claimed phrase appears to be missing a word (see similar Claim 15 for a suggestion) or it appears to be a grammatical error. Appropriate correction is required.

Claim Rejections - 35 USC § 101.

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 23-44 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

10. Claims 23-44 lack a useful, concrete, and tangible result because the system appears to be directed at software per se which is functional descriptive material per se that is non-statutory subject matter. Claims 23-44 still appear to be nothing more than software. Adding a limitation with hardware (e.g. processor, monitor) may overcome this rejection. Having a claim that is merely software is considered an abstract idea. The applicants have appeared to attempted to amend the claim around the 35 U.S.C.

101 rejection, but have failed. Claim 23 now recites a [potentially software] system implemented and executed on a computer. This still appears to be software per se.

11. To expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. 101 above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

Claim Rejections - 35 USC § 112

12. In light of the applicant's respective arguments or respective amendments, some previous 35 USC § 112 rejections to the claims have been withdrawn, however new rejections are warranted by the amendments to the claims

13. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

14. Claim 40 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The examiner could not find support in the specification for amended Claim 40's subject matter of "without changing the spelling or creating a variation of the search term." As such, this appears to be new matter.

15. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

16. Claims 1-66 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
17. Claims 1, 23, and 45 both recite the phrase "greater significance" in the last limitation of the claims. This phrase renders the scope of the claims unascertainable. This rejection propagates downward through dependent Claims 2-22 and 24-66. It is unclear what greater means and what greater significance is being given to compared to something else.
18. Claim 23 recites the phrase "to performance data" in the second to last line of the claim. The claim is indefinite because it is unclear if this is referring to expected, collected, or source performance data.

Claim Rejections - 35 USC § 102

19. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

20. Claims 1-7, 9-17, 20-29 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,434,550 (Warner et al.).

Claim 1 can be mapped to Warner as follows: "A method for automating the optimization of search results [Warner, col. 9, lines 14-22] displayed in a search Web page, [Warner, col. 3, lines 30-35 with Warner, col. 5, lines 31-33] the method comprising:

- providing search results to users of a search engine; [Warner, col. 3, lines 40-44]
- collecting data that represents a performance of a search result, the data originating from at least one of a plurality of sources of performance data that includes implicit data collected by quantifying the user's interactions with the search results; [Warner, col. 5, lines 36-41]
- normalizing the collected data that describes the user's interactions with the search results in accordance with a relative importance of the source of the data; [Warner, col. 5, lines 36-41 with Warner, col. 5, lines 62-65 with Warner, col. 6, lines 1-9 with Warner, col. 8, lines 19-26]
- comparing the normalized performance data to an expected performance data for the search result; [Warner, col. 3, lines 40-44 with Warner, col. 5, lines 22-25]
- diagnosing at least one possible cause for an under performing search result from the results of the comparison between the normalized performance data and the expected performance data; [Warner, col. 9, lines 14-21] and
- adjusting an operation of a search engine that produced the search result in accordance with the diagnosis to improve the search result performance, the adjustment operative to give greater significance to collected performance data

from at least one of the sources when normalizing the data" [Warner, col. 9, lines 14-21].

Claim 2 can be mapped to Warner as follows: "The method of claim 1, wherein the at least one of the plurality of sources of performance data includes one of an implicit performance data, an explicit performance data, a human-judged performance data, a relevance verification data, and a sample test data" [Warner, col. 9, lines 14-21 with Warner, col. 3, lines 44-54].

Claim 3 can be mapped to Warner as follows: "The method of claim 1, wherein normalizing the collected data in accordance with a relative importance of the source of the data includes giving greater weight to the collected data that describes the user's interactions with the search results and combining the data to reflect the relative importance of the source from which the data originated" [Warner, col. 3, lines 40-54].

Claim 4 can be mapped to Warner as follows: "The method of claim 2, wherein comparing the normalized performance data to the expected performance data includes determining that the search result is under performing when the normalized performance is below a quantified threshold below the expected performance" [Warner, col. 5, lines 19-25].

Claim 5 can be mapped to Warner as follows: "The method of claim 2, wherein the most important source of data is implicit performance data, and normalizing the collected data includes giving implicit performance data greater weight when combining the data" [Warner, col. 3, lines 40-54 with Warner, col. 5, lines 20-25].

Claim 6 can be mapped to Warner as follows: "The method of claim 2, wherein implicit performance data is automatically captured when a user interacts with the search result" [Warner, col. 3, lines 40-43].

Claim 7 can be mapped to Warner as follows: "The method of claim 6, wherein implicit performance data includes at least one of whether the user clicked on the result, a location of the result when the user clicked the result, and a length of time that the user browsed the result" [Warner, col. 3, lines 40-54].

Claim 9 can be mapped to Warner as follows: "The method of claim 6, wherein implicit performance data includes captured data that has been aggregated across multiple interactions with the search result" [Warner, col. 3, lines 40-54].

Claim 10 can be mapped to Warner as follows: "The method of claim 6, wherein implicit performance data includes captured data that has been aggregated across multiple users interacting with the search result" [Warner, col. 8, lines 27-31].

Claim 11 can be mapped to Warner as follows: "The method of claim 2, wherein explicit performance data includes data obtained from user response to a search engine operator-generated inquiry about the search result, wherein the inquiry includes one of an on-line inquiry and a telephone inquiry" [Warner, col. 5, lines 20-25].

Claim 12 can be mapped to Warner as follows: "The method of claim 2, wherein human-judged performance data includes data obtained from a human evaluation of the search result" [Warner, col. 5, lines 20-25].

Claim 13 can be mapped to Warner as follows: "The method of claim 2, wherein relevance verification data includes data obtained from a verification test of the search

result's relevance to verify whether a search result having a known relevance is still included in the search result generated by the search engine" [Warner, col. 5, lines 20-45].

Claim 14 can be mapped to Warner as follows: "The method of claim 2, wherein sample test data includes data obtained from a test of the search result's relevance performed on a sample of a subset of users" [Warner, col. 8, lines 27-31].

Claim 15 can be mapped to Warner as follows: "The method of claim 2, wherein diagnosing at least one possible cause for an under performing search result includes considering at least one of whether the search result is no longer valid, whether the search result appears in a poor location, whether a search term that generated the search result is easily misspelled, whether the search term is too broad to generate a meaningful result, and whether a search for the search term should be constrained to a specific resource" [Warner, col. 3, lines 40-45 with Warner, col. 5, lines 19-22].

Claim 16 can be mapped to Warner as follows: "The method of claim 2, wherein adjusting an operation of a search engine that produced the search result in accordance with the diagnosis to improve the search result performance, includes modifying the search engine's search schema to change the search result generated for the search term, including at least one of reranking, removing, and replacing the search results" [Warner, col. 3, lines 40-54 with Warner, cols. 5-6, lines 19-9].

Claim 17 can be mapped to Warner as follows: "The method of claim 2, wherein adjusting an operation of a search engine that produced the search result in accordance with the diagnosis to improve the search result performance, includes modifying the

search engine's search schema to augment a presentation of the search results generated for the search term, including at least one of highlighting, animating, enlarging, and repositioning an appearance of the search result on a search results web page" [Warner, col. 3, lines 40-54 with Warner, cols. 5-6, lines 19-9].

Claim 20 can be mapped to Warner as follows: "The method of claim 2, wherein adjusting an operation of a search engine that produced the search result in accordance with the diagnosis to improve the search result performance, includes temporarily adjusting the operation of the search engine, and determining whether the adjustments have actually improved the search result performance before permanently adjusting the operation of the search engine" [Warner, col. 8, lines 36-52].

Claim 21 can be mapped to Warner as follows: "The method of claim 2, wherein adjusting an operation of a search engine that produced the search result in accordance with the diagnosis to improve the search result performance, includes adjusting the operation of the search engine in real time" [Warner, col. 8, lines 53-65 with Warner, Fig. 5].

Claim 22 can be mapped to Warner as follows: "The method of claim 21, wherein adjusting the operation of the search engine in real time includes intercepting the search result generated by the search engine and modifying the search result before the search engine displays the search result to the user" [Warner, col. 8, lines 53-65 with Warner, Fig. 5].

Claims 23 and 24's limitation(s) have already been met by Claims 1 and 2's limitation(s), respectfully, in addition to a system and some elements for performing the

method steps of Claims 1 and 2, respectfully. Therefore, Claims 23 and 24 are rejected for the same reason(s) as stated above with respect to Claims 1 and 2, respectfully.

Claim 25 can be mapped to Warner as follows: "The system of claim 23, wherein the data collection process includes a normalizing process to normalize the collected data in accordance with a relative importance of the source of the data, and further wherein normalizing includes giving greater weight to the data from the more important sources and combining the data to reflect the relative importance of the source from which the data originated" [Warner, col. 3, lines 40-54].

Claim 26 can be mapped to Warner as follows: "The system of claim 25, wherein the diagnostic process compares the performance of the search result as represented by the normalized collected performance data to an expected performance of the search result; and further, wherein the comparison is unfavorable when the performance is lower than a quantified threshold value below the expected performance" [Warner, col. 5, lines 19-25].

Claims 27-29, 31-39, and 42-44's limitation(s) have already been met by Claims 5-7, 9-17, and 20-22's limitation(s), respectfully. Therefore, Claims 27-29, 31-39, and 42-44 are rejected for the same reason(s) as stated above with respect to Claims 5-7, 9-17, and 20-22, respectfully.

Claims 45-51, 53-61, and 64-66's limitation(s) have already been met by Claims 1-7, 9-17, and 20-22's limitation(s), respectfully. Therefore, Claims 45-51, 53-61, and 64-66 are rejected for the same reason(s) as stated with respect to Claims 1-7, 9-17, and 20-22, respectfully.

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

23. Claims 8, 30, and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,434,550 (Warner et al.) in view of U.S. Patent No. 2003/0172075 (Reisman).

For Claim 8, Warner teaches: "The method of claim 7, wherein implicit performance data."

Warner discloses the above limitation but does not expressly teach:

- "...further identifies an operation that the user performed on the result, including at least one of editing, e-mailing, printing, bookmarking, and copying."

With respect to Claim 8, an analogous art, Reisman, teaches:

- "...further identifies an operation that the user performed on the result, including at least one of editing, e-mailing, printing, bookmarking, and copying" [Reisman, paragraph [0128]].

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Reisman and Warner before him/her to combine Reisman with Warner because both inventions are directed towards searching for information.

Reisman's invention would have been expected to successfully work well with Warner's invention because both inventions use search computer databases. Warner discloses temporal updates of relevancy rating of retrieved information in an information search system (title) comprising operations done after the user views a result. However, Warner does not expressly disclose that operations done after a user views a result can be at least one of editing, e-mailing, printing, bookmarking, and copying. Reisman discloses task/domain segmentation in applying feedback to command control comprising knowing if a user edited a document.

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Reisman and Warner before him/her to take the editing of document as implicit feedback from Reisman and install it into the invention of Warner, thereby offering the obvious advantage of obtaining further subsequent actions

of which reasonable conclusions can be drawn from with regard to the relevancy of the search result(s) and generally augmenting the relevancy of the search results.

Claim 30's limitation(s) have already been met by Claim 8's limitation(s).

Therefore, Claim 30 is rejected for the same reason(s) as stated above with respect to Claim 8.

Claim 52's limitation(s) have already been met by Claim 8's limitation(s).

Therefore, Claim 52 is rejected for the same reason(s) as stated with respect to Claim 8.

24. Claims 18, 19, 40, 41, 62, and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,434,550 (Warner et al.) in view of U.S. Patent No. 6,326,962 (Szabo).

For **Claim 40**, Warner teaches: "The system of claim 23, wherein the adjustment process to generate an output data representing an action to automatically adjust an operation of the search engine, includes."

Warner discloses the above limitation but does not expressly teach:

- "...generating output data that represents an action to increase the search engine's spellchecker tolerance without changing the spelling or creating a variation of the search term."

With respect to Claim 40, an analogous art, Szabo, teaches:

- "...generating output data that represents an action to increase the search engine's spellchecker tolerance without changing the spelling or creating a

variation of the search term" [Szabo, col. 21, lines 25-40, specifically lines 36-40 with Szabo, cols. 24-25, lines 58-13 with Szabo, col. 21, lines 5-15].

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Szabo and Warner before him/her to combine Szabo with Warner because both inventions are directed towards searching for information using a computer database.

Szabo's invention would have been expected to successfully work well with Warner's invention because both inventions use keywords to aid in searching. Warner discloses temporal updates of relevancy rating of retrieved information in an information search system (title) comprising searching for information using keywords. However, Warner does not expressly disclose changing a spellchecker tolerance. Szabo discloses a graphic user interface for a database system (title) comprising identifying spelling variations of words for possibly narrowing/broadening a search.

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Szabo and Warner before him/her to take the spelling variations from Szabo and install it into the invention of Warner, thereby offering the obvious advantage of the user being able to vary the search results in order to find the desired information.

Claim 18's limitation(s) are met by Claim 40's limitation(s). Therefore, Claim 18 is rejected for the same reason(s) as stated with respect to Claim 40.

Claim 62's limitation(s) are met by Claim 40's limitation(s). Therefore, Claim 62 is rejected for the same reason(s) as stated with respect to Claim 40.

For Claim 19, Warner teaches: "The method of claim 2, wherein adjusting an operation of a search engine that produced the search result in accordance with the diagnosis to improve the search result performance, includes."

Warner discloses the above limitation but does not expressly teach:

- "...prompting the user to one of clarify or narrow the search term with an additional user input."

With respect to Claim 19, an analogous art, Szabo, teaches:

- "...prompting the user to one of clarify or narrow the search term with an additional user input" [Szabo, col. 6, lines 60-63 with Szabo, col. 21, lines 5-15].

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Szabo and Warner before him/her to combine Szabo with Warner because both inventions are directed towards searching for information using a computer database.

Szabo's invention would have been expected to successfully work well with Warner's invention because both inventions use keywords to aid in searching. Warner discloses temporal updates of relevancy rating of retrieved information in an information search system (title) comprising searching for information using keywords. However, Warner does not expressly disclose asking the user for additional search input. Szabo discloses a graphic user interface for a database system (title) comprising proposing search suggestions to the user to possibly narrowing/broadening a search.

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Szabo and Warner before him/her to take the spelling

variations from Szabo and install it into the invention of Warner, thereby offering the obvious advantage of the user being able to vary the search results in order to find the desired information.

Claim 41's limitation(s) have already been met by Claim 19's limitation(s).

Therefore, Claim 41 is rejected for the same reason(s) as stated above with respect to Claim 19.

Claim 63's limitation(s) have already been met by Claim 19's limitation(s).

Therefore, Claim 63 is rejected for the same reason(s) as stated with respect to Claim 19.

Conclusion

25. Any prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is advised that, although not used in the rejections above, prior art cited on any PTO-892 form and not relied upon is considered materially relevant to the applicant's claimed invention and/or portions of the claimed invention.

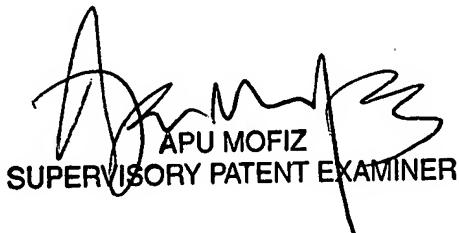
Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRENT S. STACE whose telephone number is (571)272-8372 and fax number is 571-273-8372. The examiner can normally be reached on M-F 9am-5:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu M. Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brent Stace /B. S./

Examiner, Art Unit 2161



APU MOFIZ
SUPERVISORY PATENT EXAMINER